

## **Transportation Engineer (Civil)**

Agency Code: 4499 - Exam Code: 0TR41 - Class Code: 3135

Department(s): Department of Transportation

Opening Date: 9/21/2009 12:48:00 PM

Final File Date: Continuous

Type of Examination: Departmental Open

Salary: MONTHLY-RANGED-SALARY - \$4,608.00 to \$8,379.00

Tenure/Time-base: Permanent Full-time

Permanent Part-time
Permanent Intermittent
Limited Term Full-time
Limited Term Part-Time
Limited Term Intermittent

Exam Type: State-wide

### **EEO**

An equal opportunity employer to all regardless of race, color, creed, national origin, ancestry, sex, marital status, disability, religious or political affiliation, age or sexual orientation.

#### **DRUG-FREE STATEMENT**

It is an objective of the state of California to achieve a drug-free state work place. Any applicant for state employment will be expected to behave in accordance with this objective because the use of illegal drugs is inconsistent with the law of the state, the rules governing civil service and the special trust placed in public servants.

#### WHO SHOULD APPLY?

Applicants who meet the Minimum Qualifications as stated on this bulletin may apply for and take this Training and Experience Questionnaire at any time.

Once you have taken the Training and Experience Questionnaire, you may not retake it for 6 months.

### **FILING INSTRUCTIONS**

Final Filing Date: Continuous

Where to Apply: Click on the link at the bottom of this bulletin.

#### **SPECIAL TESTING ARRANGEMENTS**

If you have a disability and need special assistance or special testing arrangements, contact the California Department of Human Resources, CalHR, Examinations Unit, at (866) 844-8671, or via the California Relay Service for the Deaf or Hard of Hearing at (800) 735-2929 from TTY Phones, or at (800) 735-2922 from voice phones.

## **ELIGIBLE LIST INFORMATION**

An open merged eligible list will be established for the California Department of Transportation. The names of successful competitors will be merged onto the eligible list in order of final score regardless of test date. ELIGIBILITY EXPIRES TWELVE (12) MONTHS AFTER IT IS ESTABLISHED. Competitors must then test again to reestablish eligibility. Competitors may also retest after SIX (6) MONTHS of the date that established their list eligibility.

#### REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

It is your responsibility to make sure you meet the education and/or experience requirements stated below.

Graduates in civil engineering from a non-ABET accredited college or university will be required to pass a written examination prior to taking the examination.

IF YOU HAVE ANY QUESTIONS CONCERNING HOW TO TAKE THE WRITTEN TEST, PLEASE CONTACT THE DEPARTMENT OF TRANSPORTATION AT 916-227-7858.

#### **MINIMUM QUALIFICATIONS**

#### EITHER I

Graduation from a four-year curriculum in civil engineering accredited by the Accreditation Board for Engineering Technology. (Registration as a senior in such a curriculum will admit an applicant to the competition, but she/he must produce evidence of graduation before she/he will be considered eligible for appointment.) (Possession of a valid certificate as an Engineer-in- Training issued by the California State Board of Registration for Professional Engineers and Land Surveyors, or issued by another jurisdiction and accepted by the California Board in lieu of the first division of the examination as an engineer may be substituted for the required education.)

#### OR II

Possession of equivalent qualifications may be demonstrated by graduation from an engineering curriculum which includes the basic engineering courses normally covered in a standard four-year engineering curriculum, and by qualifying in a written examination covering basic engineering. (Registration as a senior in such a curriculum will admit an applicant to the qualifying examination, but she/he must produce evidence of graduation before she/he will be considered eligible for appointment.)

#### OR III

A master's or doctorate degree in a civil engineering curriculum from a college or university that has a baccalaureate degree program in a civil engineering curriculum which is accredited by the Accreditation Board of Engineering Technology (ABET). (Registration as a candidate in such a curriculum will admit an applicant to the competition but she/he must produce evidence of graduation before she/he will be considered eligible for appointment.)

#### **POSITION DESCRIPTION**

A Transportation Engineer (Civil) performs engineering work involving plans, designs, details, and maintenance of transportation systems, in whole or in part, that may include land, rail, freeways, roads, airports, ramps, hydraulics, sanitary facilities, bridges, non-standard major structures or transportation-related buildings and other structures; makes layouts, assembles specifications; reviews or assists in reviewing project proposals, plans, and specifications prepared by others; acts as resident engineer on small to medium-sized construction projects; works up special provisions and contract estimates; keeps or assists in keeping the necessary records pertaining to construction progress, job expenditures, budget programs, and work order balances; confers with contractors regarding compliance with plans and quality of work and construction activity; selects and/or uses computer-based processes to compile engineering data, horizontal and vertical alignments and curve computations; develops or assists in the development or maintenance of transportation-related state-of-the-art computer programs and procedures; makes or revises maps, charts, and diagrams; uses project management systems to budget personnel and set milestones for transportation projects; makes field investigations of and for laboratory analysis of materials being used in construction transportation and public works research projects; makes controlled tests and checks performance of construction materials, soils, aggregates, cement, asphalt, concrete, and other materials incorporated in bridges, non-standard major structures, or transportation-related buildings; evaluates, or assists in evaluating, damage for all types of transportation facilities, including bridges and other non-standard major structures; makes in-plant investigations and makes recommendations regarding materials, plant design and operations; may use underwater diving equipment to make underwater quality control and structure investigations; performs transportation operational, traffic operations, planning, or maintenance engineering tasks; prepares and presents information to the public about all types of transportation engineering matters; tests for and prepares environmental reports, assessment reports of transportation surveys, investigations and analysis statements, and air and water quality reports; assists

a registered engineer in performing professional engineering work; may lead other engineering and technical personnel.

#### **EXAMINATION INFORMATION**

Training and Experience Questionnaire - 100%

All candidates will be required to complete a Training and Experience Questionnaire. The Questionnaire is designed to elicit specific information regarding each candidate's training and experience relevant to the Transportation Engineer (Civil) classification. The information on the Training and Experience Questionnaire will be competitively assessed based on pre-determined rating criteria.

The Training and Experience Questionnaire measures the following areas determined to be important for success on the job.

Computer Skills Interpersonal Skills

Visual/Technical Skills Communications Skills Project Leadership Skills

In addition, there are questions regarding work experience in jobs similar to Transportation Engineer (Civil), personal characteristics, and work performance.

#### **KNOWLEDGE AND ABILITIES**

**Knowledge of:** Basic principles of physics, chemistry, and mathematics as applied to civil engineering; engineering surveying; hydrology and hydraulics; stress analysis; mechanics; strength of materials; properties and uses of engineering construction materials; methods and equipment of engineering construction; engineering economics.

**Ability to:** Do simple mapping and drafting and make neat and accurate computations and engineering notes; prepare reports; establish and maintain friendly and cooperative relations with those contacted in the course of the work; communicate effectively.

#### **VETERANS' PREFERENCE POINTS**

Veterans' Preference credits will be added to the final score of all competitors who are successful in this examination and who qualify for, and have requested, these points through the State Personnel Board. Due to changes in the law, effective January 1, 1996, veterans who have achieved permanent civil service status are not eligible to receive veterans' preference credits.

### **CAREER CREDITS**

Career Credits will not be added to the final score of this examination, because it does not meet the requirements to qualify for Career Credits.

#### **CONTACT INFORMATION**

If you have any questions concerning this examination bulletin, please contact CalHR: California Department of Human Resources, Selection Division, Exam Services 1515 "S" Street, North Building, Suite 400 Sacramento, CA 95811 (866) 844-8671.

California Relay Service: 1-800-735-2929 (TTY), 1-800-735-2922.

TTY is a Telecommunications Device for the Deaf and is reachable only from phones equipped with a TTY Device.

#### **GENERAL INFORMATION**

**Applications are available** at <a href="www.jobs.ca.gov">www.jobs.ca.gov</a>, and local offices of the Employment Development Department.

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described on this bulletin will be rated against a predetermined job-related rating, and all candidates who pass will be ranked according to their scores.

**The California Department of Human Resources** reserves the right to revise the examination plan to better meet the needs of the service, should the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules, and all competitors will be notified.

**Candidates needing special testing arrangements** due to a disability must mark the appropriate box on the application and contact the testing department.

**Hiring Interview Scope:** In a hiring interview, in addition to the scope described in this bulletin, the panel will consider education, experience, personal development, personal traits, and fitness. In appraising experience, more weight may be given to the breadth and recency of pertinent experience, and evidence of the candidate's ability to accept and fulfill increasing responsibilities than to the length of his/her experience. Evaluation of a candidate's personal development will include consideration of his/her recognition of his/her own training needs; his/her plans for self-development; and the progress he/she has made in his/her efforts toward self-development. For more information, you may refer to the classification specification.

**General Qualifications:** Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, the ability to work cooperatively with others, and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history, and fingerprinting may be required.

**Eligible Lists:** Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-departmental promotional, 4) service-wide promotional, 5) departmental open, and 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

Veterans' Preference Points: California Law (Government Code 18971-18978) allows the granting of Veterans' Preference Points in open entrance and open, non-promotional entrance examinations. Veterans' Preference Points will be added to the final score of all competitors who are successful in these types of examinations, and who qualify for, and have requested by mail, these points. In open (only) entrance examinations, Veterans' Preference Points are granted as follows: 10 points for veterans, widows and widowers of veterans, and spouses of 100% disabled veterans (5 points for widows, widowers, and spouses if the veteran was in the National Guard); and 15 points for disabled veterans. In open, non-promotional entrance examinations, Veterans' Preference Points are granted as follows: 10 points for veterans, and 15 points for disabled veterans. Employees who have achieved permanent State civil service status are not eligible to receive Veterans' Preference Points. "Permanent State civil service status" means the status of an employee who is lawfully retained in his/her position after completion of the applicable probationary period. This includes permanent intermittent, part-time, and full-time appointments. In addition, individuals who at any time achieved permanent State civil service status and subsequently resigned, or were dismissed from State civil service are not eligible to receive Veterans' Preference Points. Veteran status is verified by the State Personnel Board (SPB). Directions to apply for Veterans' Preference Points are on the Veterans' Preference Application (Std. Form 1093), which is available at www.jobs.ca.gov or from the Department of Veterans Affairs.

# **TAKING THE EXAM**

When you click the link below, you will be directed to the Training and Experience Questionnaire. At the end of the Training and Experience Questionnaire, it will be instantly scored at your request.

Click here to go to the Training and Experience Questionnaire for Transportation Engineer (Civil).